

Amendments to the Claims

This listing of claims will replace the originally filed claims in the application.

Listing of Claims:

Claims 1 – 12 (cancelled)

Claim 13 (new): A unit for separating gas by cryogenic distillation, comprising a system of columns, means for sending a gas to be separated to one column of the column system, means for withdrawing at least one product from the column system, means for sending a gas of the unit, possibly at least one portion of the gas mixture to be separated, into a turbine with bearings, and means for sending at least one portion of the gas expanded in the turbine to one column of the column system if the expanded gas constitutes at least one portion of the gas mixture to be separated, characterized in that the bearings of the turbine are rolling bearings.

Claim 14 (new): The unit as claimed in claim 13, in which the turbine has uncoiled bearings.

Claim 15 (new): The unit as claimed in claim 14, in which the turbine has unlubricated bearings.

Claim 16 (new): The unit as claimed in claim 13, in which the gas to be separated contains oxygen and/or nitrogen and/or hydrogen and/or methane and/or carbon monoxide as main components.

Claim 17 (new): The unit as claimed in claim 16, in which the expanded gas is air, nitrogen or hydrogen.

Claim 18 (new): The unit as claimed in claim 13, in which the turbine is installed at least one meter above the floor, preferably at least two meters above the floor or even at least five meters above the floor.

Claim 19 (new): The unit as claimed in claim 13, in which the turbine is braked by a brake booster, possibly of the centrifugal type, placed on the same shaft as the turbine, all the bearings of this common shaft being unlubricated.

Claim 20 (new): The unit as claimed in claim 19, in which all the bearings of the common shaft are of the rolling bearing type.

Claim 21 (new): The unit as claimed in claim 13, in which the turbine is braked by a brake generator whose bearings are unlubricated.

Claim 22 (new): The unit as claimed in claim 21, in which the bearings of the brake generator are of the magnetic type.

Claim 23 (new): A method of separating a gas mixture by cryogenic distillation, in which a gas mixture to be separated is sent to a column of a column system, at least one product is withdrawn from the column system, at least one portion of a gas of the unit, possibly at least one portion of the gas mixture to be separated, is sent into a turbine with bearings, characterized in that the bearings of the turbine are rolling bearings.

Claim 24 (new): The method as claimed in claim 23, in which the turbine is braked by a brake generator whose bearings are unlubricated and the brake generator is driven at the same speed as the turbine.